

Title: Tangle-free Umbrella Grip

Background of the Invention:

U.S. patent 4,616,868 to Toshio Okuda disclosed a handle with carrying strap by positioning a connector loop portion of a closed loop carrying strap within a groove formed on an exterior surface of the handle, and having a hand loop (15) of the carrying strap (11) protruding outwardly from the handle for carrying purpose.

It is lacking of any retraction mechanism or winding design for retracting the hand loop of the carrying strap inwardly into the handle or for winding the loop on the handle surface when the use of the carrying strap is not desired. By the way, a pocket or mini umbrella provided with such a carrying strap, once being taken out from a lady hand bag or purse, may cause trouble such that the strap having the hand loop portion may tangle the other small items or articles such as cosmetics to embarrass the user.

The present inventor has found the drawbacks of the conventional umbrella handle and invented the present tangle-free umbrella grip.

Summary of the Invention:

The object of the present invention is to provide an umbrella grip including an elastic string protruding outwardly from the grip to form a loop portion for carrying or hanging purpose; and the

elastic string made of elastic materials and capable of being resiliently wound and engaged with at least a groove circumferentially recessed in an outer surface of an extension wall of the grip, whereby when the use of the string is not desired, the loop portion of the string may be fastened and engaged in the groove of the grip to prevent from tangling with other articles when stored in a bag or purse.

#### Brief Description of the Drawings:

Fig. 1 shows the present invention having the loop portion of the string extended for carrying or hanging purpose.

Fig. 2 shows the present invention having the string fastened on the grip.

Fig. 3 is a rear view of Fig. 2.

Fig. 4 is a perspective view of the embodiment as shown in Fig. 1.

Fig. 5 is a perspective view when slightly modified from Fig. 1.

Fig. 6 is an illustration when not secured with the string as shown in Fig. 5.

Fig. 7 is an illustration showing the string wound on the grooves from Fig. 5.

Fig. 8 shows another preferred embodiment of the present invention.

Fig. 9 shows the grip having the string wound thereon from Fig.

8.

Fig. 10 is a rear view of Fig. 9.

Fig. 11 shows a rectangular-shaped grip in accordance with the present invention.

Fig. 12 is a perspective view of the embodiment when pulling the string from Fig. 11.

Fig. 13 shows another modification of the present invention from Fig. 11.

Fig. 14 is a perspective view of the grip when pulling string from Fig. 13.

#### Detailed Description:

As shown in Figs. 1~4, the present invention comprises: a grip 1; an elastic string 2 secured to the grip 1, and a central shaft 3 coaxially connected with the grip 1 to form an umbrella.

The umbrella thus formed may be a single fold or multiple-fold umbrella, not limited in this invention. The grip 1 as shown in the drawing figures is formed as a cylindrical shape. However, the shapes of the grip 1 are not limited in the present invention. For example, a rectangular shape, a spherical shape or other shapes may also be modified from the cylindrical grip.

The grip 1 includes two grooves 11, 11a juxtapositionally, coaxially and circumferentially recessed in an outer surface of an extension wall 10 of the grip 1 about a longitudinal axis X defined

at a longitudinal center of the grip 1 and the central shaft 3. The grooves 11, 11a approximate the end plate 100 of the grip 1 and the extension wall 10 is protruded circumferentially from the end plate 100 to define an interior 101 within the extension wall 10 which may be cylindrically shaped as illustrated or polygonally shaped (not shown).

The first groove 11 adjacent to the end plate 100 of the grip 1 for primarily engaging the string 2 includes a starting groove portion 111 communicated with a first string hole 12 formed through the extension wall 10 for inserting a first end portion 21 of the string 2 through the first string hole 12 to be connected with a stopper 22 to firmly retain the first end portion 21 of the string 2 within the extension wall 10 of the grip 1, and a sloping groove portion 112 formed on an opposite end of the first groove 11 adjacent to and partitioned with the starting groove portion 111 by a sloping shoulder portion 113 coplanar to the outer surface of the grip 1 with the sloping groove portion 112 inclinedly intersecting with the second groove 11a to serve as a guiding portion from the first groove 11 to the second groove 11a juxtapositioned to the first groove 11 by a "boundary ridge 11b" (Figs. 1, 2) for guiding the elastic string 2, as wound in the first groove 11, from the first groove 11 to the second groove 11a (Fig. 2).

The second groove 11a juxtapositioned to the first groove 11 for continuously engaging the string 2 following the string portion as

engaged in the first groove 11 is communicated with a second string hole 12a which is formed in the second groove 11a opposite and adjacent to the first string hole 12 located in the first groove 11 for inserting a second end portion 21a of the string 2 through the second string hole 12a to be connected with another stopper 22 to retain the second end portion 21a of the string within the grip 1.

The grip 1 further includes a finger cavity 13 recessed in the outer surface of the grip 1 and approximating the sloping shoulder portion 113 for an easy removal of the string 2 (originally wound in the grooves 11a, 11) to form a loop portion 20 to serve as a carrying or hanging strap as shown in Fig. 1.

The elastic string (or strap) 2 is made of stretchable elastic materials, having its two end portions 21, 21a secured in the grip 1 and having a loop portion 20 protruding outwardly from the grip 1 to serve as a carrying or hanging string (or strap), with the loop portion 20 having a perimeter smaller than a total length of the perimeters of the first and second grooves 11, 11a; whereby upon winding and engagement of the loop portion 20 of the string 2 with the first and second grooves 11, 11a, the elasticity of the string 2 will resiliently tightly fasten the loop portion 20 on the first and second grooves 11, 11a without being easily loosened or "derailed" from the grooves 11, 11a.

When the loop portion 20 is protruded outwardly, the string 2 may serve as a carrying strap or hanging strap for carrying or

hanging the umbrella.

When the use of the string 2 is not desired, the loop portion 20 may be primarily wound on the first groove 11, and the remaining portion of the loop portion 20 may be engaged from the first groove 11 to the second groove 11a, as guided by the sloping shoulder portion 113 and the sloping groove portion 112, to be finally smoothly wound on the second groove 11a. The elasticity of the string 2 will resiliently fasten the string in the grooves 11, 11a without being loosened or disengaged.

The strings 2 as wound on the two grooves 11, 11a will increase the frictional force between the user's hand and the grip 1 for a firm holding of the grip 1.

Also, the "two rings" of the string 2 as wound on the grip 1 will serve as a decorative feature to increase their ornamental effect of the present invention.

Since the string 2 has been resiliently tightly fastened on the grip 1 (Figs. 2, 3), there is no remaining loop portion extended from the grip so that the string as wound on the grip will not tangle any other items stored in a pocket or bag for preventing any confusion or embarrassment.

As shown in Figs. 5~7, the grooves 11, 11a as aforementioned have been modified to have a first groove 11 having a length being generally equal to half a diameter of the second groove 11a.

The first groove 11 in Fig. 5 adjacent to the end plate 100 of the

grip 1 for primarily engaging the string 2 includes a starting groove portion 111 communicated with a first string hole 12 formed through the extension wall 10 for inserting a first end portion 21 of the string 2 through the first string hole 12 to be connected with a stopper to firmly retain the first end portion 21 of the string 2 within the extension wall 10 of the grip 1, and a sloping groove portion 112 formed on an opposite end of the first groove 11 and partitioned with the starting groove portion 111 by a semi-peripheral portion 113a with the sloping groove portion 112 inclinedly intersecting with the second groove 11a to serve as a guiding portion from the first groove 11 to the second groove 11a juxtapositioned to the first groove 11 by a "boundary ridge 11b" for guiding the elastic string 2 (as wound in the first groove 11) from the first groove 11 to the second groove 11a.

The second groove 11a juxtapositioned to the first groove 11 for continuously engaging the string 2 following the string portion as engaged in the first groove 11 is communicated with a second string hole 12a which is formed in the second groove 11a diametrically opposite to the first string hole 12 located in the first groove 11 for inserting a second end portion 21a of the string 2 through the second string hole 12a to be retained within the grip 1. The two string holes 12, 12a may be linked with a line D-D (Fig. 5) to be intersected with the longitudinal axis X defined at the center of the grip 1.

By the way, the loop portion 20 of the string 2 can be pulled

outwardly to symmetrically hold the grip and the umbrella.

As shown in Figs. 8~10, another preferred embodiment of the present invention is made as modified from the aforementioned (Figs. 1~4).

The grip 1 coaxially formed with a central shaft 3 of the umbrella includes a groove 11 circumferentially recessed in an outer surface of an extension wall 10 (such as cylindrically shaped) protruding from an end plate 100 of the grip 1; and two string holes 12 approximating with each other and juxtapositionally formed in the groove 11 through the extension wall 10 for inserting two end portions 21 of the string 2 through the two string holes 12 to be retained against an inside surface of the extension wall 10.

The elastic string 2 is made of stretchable elastic materials having its two opposite end portions 21 secured to the grip 1 through the two string holes 12 which are formed in the grip 1 and communicated with the groove 11; and having a loop portion 20 protruding outwardly from the grip 1 for carrying or hanging purpose, with the loop portion 20 having a perimeter smaller than a perimeter of the groove 11 so that the loop portion 20 of the string 2 will be resiliently tightly fastened on the groove 11 of the grip 1 without being easily loosened or derailed.

Since there is just a single groove 11 formed in the grip 1, the length of the loop portion 20 of the string 2 is also shorter than that of the embodiment as shown in Fig. 1. So, the loop portion 20 once



pulled outwardly for carrying purpose, the loop portion 20 is so small to be carried by the user's finger (or fingers) F rather than her hand to be suitable for light-weight multiple-fold pocket (or mini) umbrella of which the folded umbrella is so short and the material for making the rib assembly of the umbrella is also very light in weight so that the umbrella grip thus made may be called as "finger-hanging" umbrella grip.

The grip 1 once formed as cylindrical shape defines a longitudinal axis X at a longitudinal center of the grip 1 and the central shaft 3. About the axis X, the groove 11 is concentrically recessed in the outer cylindrical surface of the grip 12. Upon winding of the string 2 on the groove 11, a circular ring will be formed to increase the ornamental effect of the grip and also to increase the frictional force between the grip and the user's hand for firmly holding the umbrella grip.

The grip 1 further includes a finger cavity 13 recessed in the grip 1 and communicated with the groove 11 for an easy removal of the string 2 as originally wound and engaged with the groove 11.

As shown in Figs. 11, 12, the grip 1 is modified to be rectangular shape having two opposite end portions 21 connected with a stopper or retainer 22 to limit the end portions 21 of the string 2 within the grip 1. After pulling the string 2 outwardly as shown in Fig. 12, it may serve as a carrying or hanging strap.

As shown in Figs. 13, 14, the string 2 is modified from Fig. 11

to allow the two end portions 21 to be respectively inserted through two string holes 12 formed through the extension wall 10 of the grip, with each end portion 21 formed with a stopper or retainer 22 to be limited or retained on an inside surface of the extension wall 10. The string 2, after being pulled outwardly as shown in Fig. 14, may serve for carrying or hanging use.

The present invention may be modified without departing from the spirit and scope of the present invention.